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ABSTRACT

This unit, intended for grades five and six, includes a group of experiences designed to help students and the teacher understand society's effect on their environment and to parallel the activities in the classroom as a miniature society with life outside the school. The main idea developed is that cooperation is the key word in man's interaction with others and his environment. Among the ten concepts discussed are cooperation between society and the total environment, the need for conservation laws, valuing and freedoms. Besides the ten concepts, the unit includes behavioral objectives which are identified by concept, a pre- and post-test, background information designed to help the teacher effectively deal with attitudes and values, and a suggested instructional sequence. A bibliography is also presented. (TK)

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ENVIRONMENTAL ECOLOGICAL EDUCATION PROJECT

Parkway School District
Chesterfield, Missouri

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Unit: The Classroom as a Miniature Society

Revised: June 1972

SE 018 241

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SETTING

The setting for this unit can be any classroom in the building, including the cafeteria, gymnasium, and library, or even the playground. These locations will be used to intitiate a group of experiences designed to help the students and the teacher understand society's effect on their environment, and to parallel the activities in the classroom as a miniature society with life outside the school.

The unit will begin by helping the child to become aware of himself: his values, goals, beliefs, etc. He will then be asked to use that knowledge to bridge the gap between the self and another individual in the group or even the group itself. Finally, the unit will cover the group's relationship to its environment, with the emphasis being on the group's responsibility to its environment. The main idea being developed is that cooperation is the key word in man's interaction with others and his environment. What the individual or group does, either positively or negatively, affects all of man and his environment, for the present and the future.

The purpose of the child analyzing himself is to help him understand his role in the group and projecting this knowledge to the group's role in the environment. Therefore, the classroom is an excellent resource as a miniature society.

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CONCEPTS

I. There is a set of eight values by which an individual evaluates himself and others. It includes respect, power, wealth, enlightenment, skill, well-being, justice, and affection.

II. Cooperation between society and the total (natural and man-made) environment is necessary for the survival of both.

III. One person, the individual, has a positive and/or negative effect on his environment.

IV. Rules in the classroom benefit others as well as self.

V. Freedoms should be limited when they infringe upon the rights of others and the environment.

VI. Rules in the classroom parallel rules in the society.

VII. Man's past shows the need for preservation of the environment.

VIII. There is a need for conservation laws or practices to preserve our environment.

IX. There are many people who work to protect our environment. Examples are forest rangers, fire spotters, legislators, and police officers.

X. There are many people who help other people understand themselves and others. Examples are psychologists, counselors, and social workers, both professional and paraprofessional.

BEHAVIORAL OBJECTIVES

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Concept Number	
I.	1. After completing the section on values, each child will identify in writing the eight human values.
II.	2. After completing the section on the cooperation between society and the total environment, each student will be able to identify in writing one environmental practice that is necessary for the survival of man.
III.	3. At the end of the section on the individual's effect on his environment, each child will list one activity which he can do that will improve the environment.
IV.	4. After completion of the section on rules in the classroom, each student will explain the importance of one rule in the classroom and will be able to explain why it benefits others as well as himself.
V.	5. After the activities on limitation of freedoms have been taught, each student will identify in writing one limitation of freedom that is necessary to insure the rights of others and the environment.
VI.	6. After the section on rules in a classroom and laws in a society has been taught, each student will be able to compare one classroom rule with one law that protects our society.
VII.	7. At the end of the unit each child will be able to give one example of man's past misuse of the environment.
VIII.	8. Upon completion of the unit, each child will be able to give one reason why we need conservation laws to preserve our present and future enviornment.
IX.	9. After studying the section on careers, each student will be able to choose one career involved in the preservation of our

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Concept Number		
		environment and to describe the responsibilities of that job on a typical day.
X.	10.	After studying the section on careers, each student will be able to choose one career involved with understanding the self and others and to describe three activities in which a person involved in this job would be likely to participate.

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PRE-POST TEST

Concept Number

I. 1. Circle the two terms in the following list that do not name one of the eight human values by which an individual evaluates himself and others.

respect	affection
goodness	wealth
enlightenment	skill
power	justice
well-being	poverty

II. 2. Rewrite the following statement to demonstrate the need for cooperation between society and the environment.

A law banning the use of all pesticides is necessary.

_____

_____

_____

III. 3. Choose the one activity you can do to improve the enviornment.

a. Restrict industry from dumping pollutants.
b. Buy and take back returnable soda bottles (to the store or recycling center).
c. Use lead free gasoline in your automobile.

IV. 4. Choose one classroom rule and explain in a sentence how it helps you and your classmates.

_____

_____

_____

V. 5. True or false: Hunting regulations are a limitation on your personal freedom.

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Concept Number

VI. 6. Compare one classroom rule with one law that protects our society.

_____

_____

_____

VII. 7. Give one example of man's past misuse of his environment.

_____

_____

VIII. 8. Give one reason why we should have conservation laws to preserve our present and future environment.

_____

_____

IX. 9. Choose a career related to the preservation of our environment and list three activities in which a person in that position would participate.

Career _____

a. _____

b. _____

c. _____

X. 10. Choose a career related to helping people understand themselves and others and list three activities in which a person involved in this job would participate.

Career _____

a. _____

b. _____

c. _____

Answer Key for Pre-Post Test

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1. goodness
   poverty

2. Answers will vary. Any law that relates to the following concept would be acceptable:

   It would be impractical at this time to make a law banning <u>all</u> pesticides because insect control, farming, and related fields would suffer greatly.

3. B.

4. The teacher will have to evaluate each answer to this question on the basis of her own classroom rules.

5. True

6. Same as question 4.

7. Responses will vary. Some possible answers are:
   a. Strip mining
   b. Devastation of forests
   c. Hunting of animals to the point of extinction

8. Any answer that indicates awareness of <u>survival</u> is correct.

Any reasonable related career and/or activities should be accepted in answer to questions 9 and 10.

9. Examples of possible answers are:

   A. Legislator
      1. Writes and introduces bills to be considered for passage into law
      2. Studies bills and votes
      3. Surveys opinions of his voters
      4. Reads and answers his mail

   B. Fire Spotter
      1. Watches forest for signs of fire
      2. Radios to proper authorities if a fire is spotted
      3. Monitors size and location of fire

   C. Police Officer
      1. Enforces anti-pollution laws
      2. Reports violations of laws to authorities and checks

back to see if violations have been corrected
3. Helps people who are in need

10. Examples of possible answers are:

A. Counselors
1. Helps teachers and students understand themselves and others
2. Helps solve problems students may have with teachers or other students
3. Administers certain tests to students
4. Assists in indentification of problems and refers to proper person for possible solution

B. Social Worker
1. Helps families in their relationships with one another
2. Helps people who need jobs or job training
3. Identifies people who need welfare
4. Works with students who are frequently absent or have other problems

C. Psychologist
1. Researches human behavior and develops methods for dealing with behavior
2. Teaches others such as counselors, teachers, supervisors, doctors, etc., about human behavior
3. Counsels individuals and/or groups

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BACKGROUND INFORMATION

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This unit deals with attitudes and values, a difficult area to teach and work with. Therefore, the teacher must be extremely cautious in the way the material is presented. He should be careful not to single out any student, attitude, or value as being "bad." The unit is designed to give the teacher an idea of the changes in attitudes and values that take place in the class.

We hope the following material will be helpful in bringing about effective changes in the students' attitudes about themselves and the environment.

The background information is divided into four parts: Part I - Self Concept; Part II - Values; Part III - History; and Part IV - Careers.

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BACKGROUND INFORMATION: PART I - SELF CONCEPT

A. The following sociogram is to be used only as an aid or guide. It should not be considered as the absolute truth about the child. (From Clifford P., and Ed. D. Froelich and John G. Darley, Studying Students: Guidance Methods of Individual Analyses. Chicago: Science Research Associates, Inc., 1953, pp. 328-341.)

Sociograms: This could serve to measure the student's awareness of self. Questions on the sociogram should measure true feelings of group members regarding other members. The teacher should be sure the students understand that their answers to questions will be kept confidential. Also, the students should feel that they can gain something they desire by answering the questions accurately. Ask questions in an informal manner and do not force the students to answer them.

Here are the steps in administering and tabulating the sociogram: (1) the teacher gives each child a 3 by 5-inch card, on which he writes his name, and then lists the first names and last initials of classmates that he likes first, second, and third best. (2) Using the tabulation form as a guide to constructing a graphical sociogram, the teacher is aided in determining the social and interpersonal situation existing in his classroom. After making the graph the teacher may ask the following questions of himself: "Why is the excluded child or children so left out?" "If he is not new to the group, what has he done to be so completely left out?" "Is he too shy or too domineering to get along with other students?" "Are there any other reasons for his isolation?"

Sample Card

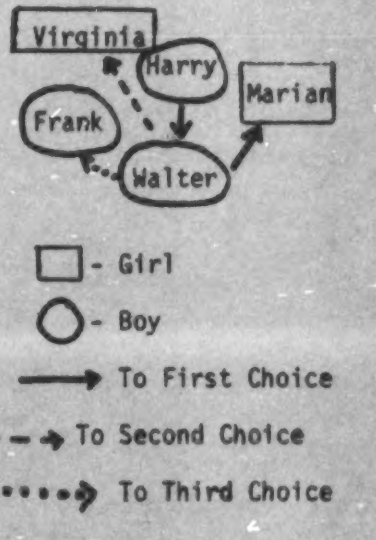
(This is Walter's card. He rates Marian as first choice, etc. Harry A. chose Walter first.)

Walter B.
Harry A.-1
1. Marian C
2. Virginia F.
3. Frank D.

Sample Tabulation Form

Chosen - Chooser	HARRY A.	WALTER B.	FRANK D.	MARIAN C.	VIRGINIA F.
Harry A.		1			
Walter B.			3	1	2
Frank D.					
Marian E.					
Virginia F.					
Chosen as					
First	0	1	0	1	0
Second	0	0	0	0	0
Third	0	0	0	0	0
Total	0	1	0	1	1

Sample Graph



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B. Role Playing: This term describes the informal dramatization of a situation, problem, story, or scene as presented by a leader. The teacher sets the scene, selects the students to participate in it, and guides the discussion and evaluation at the conclusion of the enactment. In this type of role playing individuals assume the parts of other people and extemporaneously act out their own thoughts, feelings, and behavior.

There are four parts in a role playing situation: preparation, introduction, enactment, and discussion.

(1) PREPARATION: The teacher must first select the issue or problem. No child is ever forced to take a role.

(2) INTRODUCTION: The teacher states briefly the situation to be enacted. A warm-up time is then given so that the students can pantomime the situation. The pantomime usually is stopped after five minutes. The teacher makes a few comments on the creative ideas observed in the pantomime. The teacher now briefly presents the actual role-playing situation to the class and gives the students some practice in speaking in character. Finally the teacher asks for volunteers to take various roles.

(3) ENACTMENT: The Teacher helps the actors set the scene. She may review the characters and their purpose in the scene for the benefit of the players. The class action is started by the words, "Ready, begin!" The teacher tries to say as little as possible during the enactment; however, he may do some coaching on the side if it is necessary to keep the action moving along. When the scene seems to have developed to its fullest potential the teacher says, "Stop. Come and sit down."

(4) DISCUSSION: It is usually effective to have the actors evaluate their own performance first. At the end of a scene, no matter how weak it was, the teacher makes at least two or three positive remarks. The members of the audience may also be asked to look for specific points or to identify with the feelings of a specific actor. Example: See "How Do You Feel? Game" for situations that can be used for role playing.

C. Group Discussions on Feelings and Values: (From Dinkmeyer, Developing Understanding of Self and Others, pp. 4 and 15, and the Duso Manual.)

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In order to conduct a successful group discussion that focuses attention on the children's purposes, feelings, and values the teacher should make the class aware that she really cares about what each child says and feels. This attitude can be communicated through eye contact, attentiveness to verbal communication, and nonverbal support that comes through an empathic smile.

The following are suggestions that should help the teacher have productive discussions in this area: (1) Show the group that you care and are concerned with developing a relationship of mutual respect. (2) Make sure the children understand the purposes of the group discussions and allow them to establish their own limits. (3) Sense the group atmosphere and be willing to discuss it. (4) Avoid control problems by talking less, lowering your voice, using hand signals, utilizing proximity control by moving to any area of disturbance, or using natural consequences. (5) Find the thoughts and feelings of group members by pointing out similarities and differences in concepts, attitudes, and feelings as they are being discussed. (6) Encourage silent members to participate when they seem ready. (7) Observe and encourage any tendencies of children to be emphatic, and link or supply alternative solutions to problems. (8) Emphasize positive feedback and help group members to see the strengths and assets of individuals. (9) Assist the group in developing a tentative analysis of behavior and its purpose. Say, "Is it possible...?" "Could it be...?" and state personal hunches about purpose in a tentative manner. (10) Clarify, restate, and summarize the children's expressed thoughts, but never sermonize, humiliate, or moralize. (11) Five minutes before the close of the session ask, "What do you think you learned about yourself and others today?"

D. Sentence Completion: (From Don C. Dinkmeyer, Guidance and Counseling in the Elementary School. New York: Holt, Rinehart, and Winston, Inc., 1968, pp. 200-208.) This exercise should be used to observe changes in attitudes at various times during the year. Sentences are tailored to fit the needs of a particular class. Here are some sample sentences to be used at the beginning of the year. Communicate to the class that "the whole purpose of the questionnaire is to help pupils understand themselves and to help acquaint the teacher with the feelings and problems of each member of the class." Ask these after teacher-student rapport is established: (1) I'm proud of myself because... (2) My best work in school is ... (3) I could improve myself by... (4) I wish my classmates would... (5) I could help my class improve by.. (6) I do my lessons because... (7) The kind of friend I like best is... (8) I wish my teachers would...

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(9) I wish my parents would... (10) I wish... Hold individual conferences of about ten minutes in length with each child after the first questionnaire to clarify obscure items and to develop better teacher-pupil understanding. Help the child to see his weaknesses and strengths objectively by comparing achievement test results with the child's opinion of himself.

Give this set of completion sentences shortly before the close of the first semester: (1) Since September, I think I have made progress in... (2) I still need to improve in... (3) I do my lessons because... (4) The kind of friend I like best is... (5) I think our class has made progress in... (6) Our class could improve by... (7) I could help my class improve by... (8) My teachers could help more by... (9) I wish... These questions are evaluated and extra attention is given to any students who have motivational or emotional problems. The responses can also be used to analyze the teacher's success in motivating learning. Give the students the first set of questions again in the last portion of the year, adding this extra sequence: "Before the end of the term I need to..." By giving them a final list similar to the one administered early in the year, a basis for evaluating the year's growth is available.

E. Diaries: Have the children keep a record of their experiences as they occur in individual diaries. Use them for gathering data about the interests, problems, attitudes, and social relationships of pupils in their out-of-school activities. The diaries will also permit the teacher to obtain clues for understanding pupils through their selection of events to record.

F. Autobiographies: These are pupils' own stories of their lives. They may be objective but they probably will reflect the pupils attitudes, values, and feelings. The following are some items that could be used in the autobiographies: (1) Before I started to school... (2) When I first went to school... (3) A school experience I remember is... (4) Summer vacation is... (5) The most interesting thing in my life so far is... (6) Troubles I have had are... (7) My personal interests are... (8) My companions are... (9) My future plans are... (10) My family is... It is helpful to put this exercise in booklet form with a cover of construction paper.

G. Puppet Activities: Each student will make a puppet fashioned after his own image. These puppets can be made out of old socks or papier mache. Then the children will write plays about their puppets representing themselves. The class can make a puppet stage from a large box. Each child's puppet can also be

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used in other games and activities presented in this unit.

The following are suggestions to make the puppet plays more effective: (1) Practice the plays in front of mirrors. (2) Always have the puppeteer keep his eyes on his puppet. (3) Keep the puppet who is talking in motion and the silent puppets inactive. (4) The use of real objects and props make presentations more interesting to view. Props must be large enough to be visible to the entire class, and yet capable of being easily handled. Sizing to scale is only a secondary consideration. (5) The puppeteer needs to be sitting in a comfortable position behind the stage, not squatting or stooping. (6) Props should be within easy reach of the puppeteer. (7) A stage floor is necessary for hand puppets. It becomes a place to rest props. An ideal floor may be a narrow shelf, 6 to 8 inches wide and 3 to 4 inches long, behind a large cardboard box. As an alternative, the top of a table may be used with some success if the audience is able to see the action easily. (8) Puppetry is a rather intimate art which requires the audience to be close to the stage so all can hear and see comfortably.

H. "How Do You Feel? Game": Teachers may ask children to role play, use puppets they made, etc. to answer some of the following questions:

"How do you feel when...someone says you are not nice?"
...someone scolds you?"
...someone smiles at you?"
...someone says he likes you?"
...you tell your Mother you love her?"
...you tell someone you hate him?"
...you are angry?"
...you get up in the morning?"
...you are going to a party?"
...your friend spills lemonade on you?"
...you win a game?"
...someone else wins a game?"
...someone says, 'I don't like you any more'?"
...someone admires your dress or shirt?"
...someone says you did good work?"
...you have a new toy?"
"How do you feel ...if your new toy gets broken?"
etc.

I. Anecdotal Records: (From Bonney & Hampleman, pp. 9-16.)

An anecdotal record is a written description by the teacher of the behavior of a pupil. It is the teacher's best effort at

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making a work snapshot of a moment or event in which the student takes part. The general purpose is to collect data about the social and emotional facets of a pupil's growth and adjustment. The teacher should record that behavior which is most typical or most significant about each pupil. He should try to observe him in several different kinds of situations such as the lunchroom, playground, and out-of-school activities. Each anecdote should specify the student observed and should be recorded as promptly as possible so that important data is not forgotten. It should also be dated, signed by the teacher, and placed in the child's classroom folder. These behavioral incidents can only be interpreted with all the other unrecorded observations made by the teacher and all other work that the child has completed. Relying on one or two isolated incidents can lead to faulty judgment. Also it does not indicate the underlying causes of a child's behavior, but only gives an indication of his underlying values and attitudes.

J. Personal Data Blanks: These are questionnaires which request personal information from pupils. The data requested usually falls in these areas: Personal identification, family and home information, health, history, and pupil interests. The following are questions that may be used in a personal data blank: PERSONAL: (1) Name (2) Birthdate (3) Address (4) Number of years in this school (5) Other schools attended, if any. FAMILY: (1) Name of father (2) Name of mother (3) Names and ages of sisters and brothers (4) Others living in your home (5) Pets. HEALTH: (1) Injuries and/or accidents (2) Weight (3) Height (Check with school nurse for answers to other questions, such as allergies, special handicaps, etc.). INTERESTS: (1) Favorite games (2) Free time activities (3) Favorite books (4) Dislikes, etc.

K. Questionnaires, Check Lists, and Rating Scales: Questionnaires are structured paper and pencil group interviews in which the questions used are usually restricted to one small category. Most of the published questionnaires are called personality tests, personality inventories, or problem check lists. The results obtained are never highly valid, but they are valuable for studying individual responses to specific questions.

Check lists are lists of items that serve as reminders of things in need of completion. On check lists used by teachers the items are usually behavior traits or skills to be mastered by the students. Check lists can be marked by the teacher or by the children depending on the lists and their purposes.

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The following is an example of a check list the teacher can design:

BEHAVIOR DURING CHAPTER DISCUSSION
(Teacher checks items that apply)

a. volunteers information
b. never volunteers
c. sticks to point being discussed
d. digresses
e. interrupts others
f. listens carefully to points made by others, etc.

Rating Scales are special kinds of check lists in which items checked must be rated quantitatively according to the degree of presence or absence of a trait, perfection of a skill, or completion of a task. Here is an example of a teacher-made rating scale. Answers are marked on a scale of one to five, #1 being the most positive and #5 the most negative. The teacher can make up similar questions of her own.

RATING SCALE ON ABILITIES, FEELINGS, IDENTITIES, AND MOTIVATIONS

1.	I am good at sports.	1 2 3 4 5
2.	I do good work at school.	1 2 3 4 5
3.	I have many friends at school.	1 2 3 4 5
4.	I have many friends in my neighborhood.	1 2 3 4 5
5.	I am pretty well satisfied with myself.	1 2 3 4 5
6.	I control my temper.	1 2 3 4 5
7.	I finish most of my assignments.	1 2 3 4 5
8.	I make friends easily.	1 2 3 4 5
9.	I have lots of pep and energy.	1 2 3 4 5
10.	I have many hobbies.	1 2 3 4 5

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BACKGROUND INFORMATION: PART II - VALUES

A. The following values are presented in the Human Value Series written by Arnspiger, Brill, and Rucker. The values are based on Harold Laswell's value category system. Lasswell, after years of study, determined that eight universal values, or needs, wants, or aspirations, are prized in any culture or group. Rucker, who was a consultant to the Coronado project, adapted these value categories for use in schools as follows:

1. Respect refers to the degree of recognition given to, or the degree of discrimination against, people in their capacity as human beings. It includes concern for authority, flag, country, peers, adults, and self.

2. Wealth is the ability to provide for one's needs adequately; to develop talents that increase one's productivity; to appreciate and care for material objects with which one comes into contact.

3. Power referes to participation in decision-making that affects self and group values. It refers to development of leadership and to the ability to follow a leader.

4. Enlightenment is the process of improving one's ability to make intelligent decisions in a problem-solving situation, of understanding abstractions and mastering problem-solving techniques.

5. Skill is the development of potential talents in social, communicative, physical, mental, and aesthetic areas.

6. Justice or rectitude is the degree of concern one has for the welfare of others and the degree of responsibility one has for his own conduct in association with others.

7. Well-being refers to the mental and physical health of the individual, his attitude toward fitness, and his ability to participate effectively in physical activities.

8. Affection includes liking others and being liked, feeling love and friendship for persons in primary and secondary relationships. In this context primary relationships are existing between one individual and another; secondary relationships are those between an individual and an institution or group.

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B. The Human Values Series. Austin: Steck-Vaughn Company, 1970. (An Intext Publisher, P.O. Box 2028, Austin, Texas 78767)

A list of the books for each grade level follows:

Grade 1 -	Myself	4 -	Values to Learn
2 -	Myself and Others	5 -	Values to Share
3 -	Our Values	6 -	Values to Live By

	List	Net
Each Student's and Teacher's Edition in the series	$4.72	$3.54
The Teaching Pictures Series	25.00	18.75
Additional Teacher's Edition for Teaching Pictures Series	3.00	2.25

There should be a copy of The Human Value Series in each of the Parkway School District's elementary schools. Schools which have ordered them for fall, 1972 are: Pierremont, Claymont, McKelvey, Mason Ridge, Manchester, Barretts, and perhaps others. The EEE resource teacher also has a set available to him.

C. Suggestions for Bringing about Attitude and Value Changes

Since schools have long been considered institutions which help transmit the attitudes and values of society, the teacher should examine his own attitude, as well as aid his students in examining their attitudes regarding the consequences which can result from different value positions. Children should be made aware that there are many alternatives and feasible solutions to identifiable environmental problems.

The following methods have been used successfully in changing the attitudes of some people:

1. Verbal reinforcement praising desirable attitudes.

2. Counter-attitudinal role playing - playing the roles of people holding various attitudes.

3. Debates - Preparing to defend two opposing sides of an issue without being told in advance which side to take.

4. Providing new information.

5. Introducing anxiety in regard to fear - arousing situations. (This should be done carefully and should be accompanied by solutions for handling or averting the threats.)

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6. Understanding the psychological need for holding a particular attitude.

7. Changing certain social factors, for example, by changing existing laws.

8. Adult models demonstrating attitudes a child can identify with and copy.

9. Involving students directly in action projects. Behavior change preceding attitude change.

D. Methods for Clarifying Environmental Values[1], by Clifford Knapp

1. Value Sheets

A value sheet consists of a thought-provoking statement or quotation followed by a series of value-eliciting questions for the students to respond to in writing. Value sheets can also be composed of questions based on a film, play, or other experience that has been shared by the students.

Example:

"It is difficult to conceive of the American society, or any other, wanting to halt the rise in productivity or efficiency which has made real incomes higher for all. But even if 'we' wanted to, in our kind of society and economy we couldn't.

The profit motive will almost always propel individual, daily decision in the direction of higher productivity. A business will always buy a new machine if it will cut costs and increase efficiency. That is what has made our standard of living rise.

Saving the environment is something like cutting taxes. Everybody is for it except when it affects local employment, puts a crimp in somebody's pet project, or threatens the conveniences and gadgets of the 'good life.'"

To think and write on:

a. Can you think of examples of instances when you said

---

[1]These methods are described more fully in the book, Values and Teaching by Raths, Hermin, and Simon.

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you were for reducing pollution, but then behaved in a way that perpetuated the environmental problem? List three examples. (e.g., You said you were against air pollution but (1) burned the trash, (2) used high octane gasoline, or (3) did not put a pollution control device on your car.)

b. Are you willing to change specific behaviors that contribute to pollution? If so, which behaviors?

c. Do you think the profit motive will lead to the destruction of life on earth?

d. Would you favor stronger governmental controls on environmental pollution even if it meant increased costs and a lowering of your standard of living?

Example:

"Contemporary society is dependent on man's ability to work fundamental changes in the natural environment."
Orris C. Herfindahl and Allen V. Kneese, Quality of the Environment, p. 1.

To think and write on:

a. How has man changed the natural environment in your community? (e.g. planted lawns, built roads, cleared land for shopping centers)

b. Have these changes contributed to a better society?

c. Which changes in the environment were beneficial and which were detrimental to your community? Consider short term and long term effects.

d. Imagine what our society would be like if we had made no significant changes in the natural environment.

2. Pictures Without Captions

Have the students write a caption for a picture depicting an environmental problem.

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(Reproduced with permission from Environmental Action, January 9, 1971.)

3. Role-playing

Describe a situation which presents opposing viewpoints on an issue and have the students assume the roles of the individuals involved. Role-playing can point out a need for further study of an issue in order to better understand the facts.

Example:

To the Daily Egyptian:

When spring arrives this year, an indefensibly cruel scene will be re-enacted on the coasts of the Northwest Atlantic and Gulf of St. Lawrence. Every spring and summer, thousands of baby seals are brutally slaughtered by Canadian and Norwegian hunters. The single purpose of these mass killings is to collect seal pelts, which are made into fur clothing.

Whatever dubious justification exists for killing innocent creatures solely for their fur, there certainly can be no defensible excuse for the manner in which these seals are murdered. The hunters club and skin them, in many cases while they are still conscious. Last spring alone, 260,000 baby seals were killed in this way. The United States government, on whose soil this barbarism is taking place, has failed to put an end to

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the manner in which these animals are being destroyed.

Sue Carruthers
Graduate student Government

(From the Daily Egyptian, March 3, 1970, p. 4)

Have students play the roles of the letter writer, a seal hunter, a United States government official, and officials from Canada and Norway.

Example:

At a city council meeting an ordinance to ban the sale of non-returnable beverage containers is to be voted upon. Before the vote is taken the mayor reads letters received from three concerned citizens.

Letter #1

Dear Mayor:

As a consumer, I urge that the council to defeat the proposed ordinance that would ban the sale of non-returnable beverage containers in the city. Many of my favorite drinks are not available in anything but throw-away bottles or cans. It would be an inconvenience for me to drive to the next town to buy them there.

Signed,
Bert Cross

Letter #2

Dear Mayor:

Please tell the city council to vote in favor of the ordinance to ban non-returnable beverage containers. As you know, we have a litter problem in our city and the ban would reduce it considerably. Besides, it costs less to buy drinks in returnable containers. Our city should be a leader in doing something about our nation's refuse problem and conserving glass and metal.

Signed,
Betty Smith

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Letter #3

Dear Mayor:

As a member of the Chamber of Commerce, I would like to voice my opposition to the proposed law to ban the sale of non-returnable bottles and cans. Many people in our community will drive to neighboring towns despite the inconvenience involved to purchase non-returnables. Our businesses will suffer and some people will lose their jobs. Please vote "no" on this issue.

Signed,
Philip Harding

Role play the city council meeting, having the students take the positions of these letter writers and of other interested citizens.

4. Contrived Incidents

The teacher can create situations which stimulate discussion of controversial environmental issues.

Example:

The teacher can take the students on a short walk on the school grounds during which the teacher casually throws a piece of paper on the ground and walks away. The teacher could also break a limb from a tree or write on the school building with chalk. A guest speaker could be invited into the classroom to disagree with the teacher on an environmental issue. After witnessing incidents, the students can discuss their thoughts and feelings.

5. Devil's Advocate

The teacher can develop plausible reasons definding various pollution practices and attempt to justify those positions to the students.

Example:

The teacher could state reasons why a chemical factory should be allowed to continue to dump waste into a river. Some plausible reasons could be:

a. It keeps the cost of the chemical products low.

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b. The industry could not compete with other chemical industries if it had to build expensive waste treatment facilities.

c. Rivers have been used for centuries to dispose of wastes.

d. Most of the public doesn't really care if the dumping continues.

After a short talk justifying certain kinds of pollution, the teacher should initiate a discussion on the topic.

6. Value Continuums

The teacher can construct an environmental value continuum and place it on the chalkboard. Have the students go to the board in turn and place a mark on the line indicating their position. Have them explain some of the reasons for selecting that position.

Example:

What is your position on these value lines?

Returnable Ron - - - - - - - - - - - - - - -No-deposit Norris

He uses only returnable containers and will not eat or drink anything that comes in a throw-away container.

He uses only non-returnable containers because he thinks that returnables are too much trouble to take back.

Bike-riding Betty- - - - - - - - - - - - Motoring Mable

She doesn't use any vehicles that pollute the air and therefore rides her bicycle to work 40 miles away each day.

She uses motor vehicles at every chance she gets. She even retrieves the evening paper by taking the car down the driveway of her home.

Pure-air Paul - - - - - - - - - - - - - - - Polluting Polly

He is so opposed to air pollution that he takes short breaths so he won't add as much carbon dioxide to the air.

She is so unconcerned about air pollution that she burns cigarettes for incense.

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Let-live Larry- - - - - - - - - - - - - Pesticide Pete

He is so against any type of pesticide that he allows mosquitoes to bite him rather than swat them.

He uses pesticides so freely that he sprays his house and backyard daily to get rid of insects.

7. Open-Ended Questions

An open-ended question is written on the blackboard and the students are asked to respond in writing.

Examples:

a. "If I had the power to correct one environmental problem, I would choose. . ."

b. "The best way to reduce noise in my community is to . . ."

c. "The school grounds could be made more beautiful by . . ."

8. Time Diaries

A time diary is a chart listing what a person does every hour, or half-hour during the week. Each student is asked to keep a record of how he spends his time for one week. It should be stressed that this is a personal diary that will not be read by the teacher. After completion of the diary, the students are asked to respond to such questions as:

a. Have you given up anything that would have contributed to pollution?

b. Have you done anything to make your environment a better place in which to live?

c. Have you done more things to pollute the world than to clean it up?

d. How many hours did you spend in activities involved in the use of electricity? How can you reduce the time next week?

e. Are you proud of how you used your time this week?

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9. Autobiographical Questionnaires

The teacher can construct questions which will examine the students' behavior in regard to environmental pollution, such as:

Have you ever:

thrown refuse on the ground or in the water?

picked up litter from the ground?

burned trash outside?

hunted or fished without a license?

reported a violation of a fish or game law?

donated time or money to an environmental organization?

fixed a leaking water fixture immediately?

changed your detergent to one lower in phosphates?

written a letter to the editor of a newspaper or magazine protesting a misuse of the environment?

written a letter to a governmental official expressing your position on an environmental issue?

Questions for teachers:

a. What are some environmental problems existing in your community (e.g. sewage leaks, open burning, mosquitoes)?

b. Do you know of some effective means for dealing with these problems?

c. Which of these problems would provide opportunities for meaningful involvement of the students in your class?

d. Which should be given the most emphasis in your curriculum: local, state, regional, national, or world environmental problems?

e. Are you optimistic or pessimistic about the future quality of the environment?

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f. What influence do you have on the environmental values of your students?

g. Which environmental values held by your students should you attempt to influence and which should you not attempt change?

h. Are the differing viewpoints in an environmental controversy discussed in your class?

i. Which instructional techniques are used in your class to teach about environmental problems (e.g. games, role playing, field trips, newspapers, guest speakers, films, slides, books, periodicals)?

10. Voting

The teacher asks questions which requrie the students to take a stand on issues by raising their hands. The purpose of voting is to direct the students' attention to a problem that they may not have thought about in detail.

Examples:

a. How many families use lead-free gas in their car?

b. How many have never thrown a piece of paper on the ground and left it?

c. How many have passed by litter without picking it up?

d. How many have purchased non-returnable bottles during the last week?

e. How many have refused to buy something because it had excess packaging?

11. Rank Ordering

Words or statements are placed on the chalkboard and the students are asked to rank them in order of their preference. Rank ordering can lead to discussions of why different students have varying preferences.

Examples:

(1) Given a small budget to spend on alleviating the litter

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problem in your community, how would you rank the following priorities?

a. Purchase litter containers.

b. Place "No Littering" signs in strategic places.

c. Hire someone to pick up litter.

(2) If you had the money to purchase machinery to recycle only one type of material, how would you rank the following in importance in your community:

a. paper

b. glass

c. aluminum

(3) Your city owns 1000 acres on the edge of town. How would you rank the following land uses?

a. Lease the land to a strip mining company with the understanding that the city would share in some of the profits and the company would reclaim the land.

b. Sell the land to a large department store for development of a shopping center.

c. Lease the land for grazing ground.

12. Coded Papers

The teacher or students can code papers with pluses (+) or minuses (-) to indicate what issues the writer is for (+) or against (-). The papers can be written by the students, and the teacher can do the coding instead of assigning a letter grade. The students can also code papers to indicate where they agree and disagree with the writer.

Example:

Place pluses next to words or phrases with which you agree and minuses next to words or phrases with which you disagree.

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A CONSERVATIONIST'S LAMENT[1]

The world is finite, resources are scarce.
Things are bad and will be worse.
Coal is burned and gas exploded.
Forests cut and soils eroded.
Wells are dry and air's polluted,
Dust is blowing, trees uprooted.
Oil is going, ores depleted,
Drains receive what is excreted.
Land is sinking, seas are rising,
Man is far too enterprising.
Fire will rage with Man to fan it,
Soon we'll have a plundered planet.
People breed like fertile rabbits,
People have disgusting habits.

Moral:
The evolutionary plan
Went astray by evolving man.

THE TECHNOLOGIST'S REPLY[2]

Man's potential is quite terrific
You can't go back to the Neolithic.
The cream is there for us to skim it,
Knowledge is power, and the sky's the limit.
Every mouth has hands to feed it.
Food is found when people need it.
All we need is found in granite
Once we have the men to plan it.
Yeast and algae give us meat,
Soil is almost obsolete.
Men can go to pastures greener
Till all the earth is Pasadena.

Moral:
Man's a nuisance, man's a crackpot
But only man can hit the jackpot.

---Kenneth Boulding

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[1]William L. Thomas, Jr., ed., Man's Role in Changing the Face of the Earth. Chicago: The University of Chicago Press, 1956, p. 1087.

[2]Ibid.

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BACKGROUND INFORMATION: PART III - HISTORY
(Environmental history based on The Quiet Crisis, by Stewart Udall)

It is suggested that the teacher read this book and refer to the following outline:

I. The Land Wisdom of the Indians

A. Primitive peoples - reverence for the life-giving earth and preserving it for future generations

B. Land and the Indians
1. Bound together by ties of kinship and nature, rather than by an understanding of property ownership
2. Religion based on worship of Mother Earth

C. Indians were skillful gardeners and taught the colonists how to fertilize as well as raise food

D. Differences in concept of land ownership let to hopeless misunderstanding between Indians and white men

E. Indians influence on American way of life
1. Contribution to agriculture
2. A better understanding of how to live in harmony with land
3. Place names to identify our rivers, forests, and cities

F. Present conservation movement has turned back to ancient Indian land ideas
1. We are not outside of nature, but of it
2. Unborn generations have claims on land
3. Men need to learn from nature
4. Keep an ear to the earth
5. Frequent contact with animals and wild land to replenish men's spirits
. Recovering a sense of reverence for land

II. The Birth of a Land Policy

A. Land policy was carry-over from the feudal system in the Old World
1. Few people owned large tracts of land
2. Land owner had the right to use or misuse it as he saw fit

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B. Geography of land in the U.S. produced different relationships between man and land
   1. South - surplus crops, leisurely attitude, manpower source needed
   2. New England - rough land, hard life, poor climate, people became self-sufficient and individualized
   3. Pacific Southwest - Franciscan and Jesuit Padres
      a. Came with cattle and seed and saintliness
      b. Regarded Indians as human beings
      c. Shared land and taught them how to irrigate

C. Thomas Jefferson
   1. "Agriculture is the first and most precious of all the arts."
   2. Advocate of soil studies and crop rotations
   3. Sought to understand the art of renewing soil for benefit of future users
   4. "The small landholders are the chosen people of God."
   5. Wrote the Ordinance of 1785 stating that all occupied land to the West would belong to the people and not the original 13 colonies

D. Myth of Superabundance
   1. Started by Secretary of Treasury, Alexander Hamilton
   2. Immense areas sold to land speculators to pay for war debt
   3. Idea that America was rich in natural resources that would never by depleted

E. Louisiana Purchase, 1802 - area purchased as large as Western Europe.

III. The "White Indians" - undisciplined qualities of trappers

A. Daniel Boone
   1. Explored a new colony in a new region, Kentucky wilderness
   2. Later established a settlement called Boonesborough

B. Filson's book about Danile Boone
   1. Beginning of myth-making about western explorers
   2. Made it glamorous for others to go west

C. Jedadiah Smith
   1. Scouted nearly every major stream west of Mississippi
   2. Traveled farther and saw more of west than anyone including Louis and Clark

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3. Had he recorded the areas he explored, it would have put map-making ahead 20 years
4. Made a complete circle from Southern Colorado to California, north to Oregon and back
   a. Survived Indian attacks
   b. Braved bad weather and the elements to return safely to his original starting point in Colorado

IV. Raid on Resources

A. Began with mountain men and beaver trappers - indication of the wastefulness to come by man

B. Logging
   1. Largest manufacturing industry
   2. Careless loggers deliberately set afire 25,000,000 acres of forest yearly
   3. Failure to replant saplings
   4. Average life of a saw mill was 20 years; operated just long enough to strip land and then move on
   5. Great giveaway of land and sell-cheap policy of Jackson
   6. 1850-1871-Railroad Co. bought land equal in size to France, England, Scotland, and Wales from federal government as part of the great giveaway policy

C. Mining
   1. Hydraulic mining caused tons of topsoil to be washed away into rivers
      a. Caused pollution of rivers
      b. Erosion of land
   2. Onslaught of mountainside continued until California legislature outlawed hydraulic mining in 1884

D. Oil and Natural Gas
   1. Many oil wells were not capped in first big oil boom in Pennsylvania; 3,000 barrels of oil was lost each day
   2. 1901, in Texas, a new record was set for lost barrels of oil in a day when over 110,000 were lost

E. Farming
   1. Cotton and tobacco farmers abused the land by robbing the soil of all its minerals and nutrients, then moved on

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2. Settlers in West plowed soil which never should have been plowed
   a. Dried land up because of lack of rain and erosion occured
   b. Led to the dust bowl of the 30's
3. Over-grazing added to erosion problems in the West Plains

F. Wild Life
   1. Birds
      a. Large birds killed for their feathers for ladies' hats
      b. All birds natural habitats destroyed by loggers
      c. Audubon Society took active interest in birds and saved many species from becoming extinct
      d. Once there were 5 billion passenger pigeons; by the end of the 19th century this species was extinct
   2. Buffalo
      a. Part of scorched earth policy
      b. Killed for following reasons:
         1) Sportsmen - trophies
         2) Railroad men - shipping purposes
         3) Market hunters - for their tongues
         4) Cattlemen - so their cattle would have more grass
         5) Fur traders - wanted their hides
      c. Over 1,000,000 buffalo killed each year from 1872-1875
      d. 1875 - first law to protect a species of wild life
         1) Passed by Congress to save the buffalo
         2) This much-needed bill had been vetoed by President Grant
   3. Fur-bearing animals
      a. Beaver - species was saved only because the beaver hat went out of style in Europe
      b. Seals
         1) Five million at one time
         2) During an 80-year period before U.S. bought Alaska the seal population had been cut in half
         3) United States interested only in money the seal fur brought them, not in saving the species
         4) 1911-Fur Seal Treaty
            (a) Made between Canada, Japan, U.S., and Russia

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(b) Only 3% of the original five million seals still remained

V. People Who Acted to Preserve Natural Resources and to Prove the Theory of Superabundance Untrue

A. John Adams
   1. Advocate of government support for science
   2. Opposed to giving away of public land
   3. Wanted to use federal land to build roads and canals
   4. Promoted science education

B. George Marsh
   1. Fountainhead of conservation movement
   2. Advocate of selective cutting of forests and replanting; trees to be grown artificially on farms
   3. Proponent of an experimental managed forest

C. Carl Schurz
   1. Initiated an intensive study of forest depredations
   2. Singled out lumbermen for destroying whole forests by their hit and run policy
   3. Set up the forest reserve policies

D. John Powell
   1. Presented land use plan for Western U.S. to Congress
   2. Recognized irrigation was needed
   3. Not enough rainfall to support agriculture
   4. Recommended establishment of the U.S. Geological survey to find facts about the earth so that sensible resource planning could begin

E. Gifford Pinchot
   1. Program of system management of American forests
   2. Instrumental in passage of bill in 1905 which transferred the forest reserves from Department of Interior to Department of Agriculture and designated them as national forests
   3. Weeks Act passed by his urging; Federal government bought back large tracts of land from Eastern states to be put into National Forest
   4. Influenced Theodore Roosevelt's plan for conservation
   5. The concept of conservation was developed by Pinchot; government forests in India were called Conservancies
   6. Planned the influential White House Conference on Conservation in 1908, the farsighted Inland Waterways Commission study, and the Landmark report of the International Conservation Commission in 1909

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F. Theodore Roosevelt
   1. National forests increased from 42,000,000 to 172,000,000 acres under his leadership
   2. 138 new forests created in 21 states
   3. Proclaimed 18 national monuments, including Grand Canyon
   4. Carved out 4 wildlife refuges, withdrew 51 smaller reserves for birds and waterfowl to protect them from extinction
   5. Developed stewardship landlord principle which meant that in essence whatever you use in public property you must pay for; marked the beginning of management of public lands
   6. Expanded the forest conservation idea to include minerals, hydropower, and all other natural resources

G. Franklin D. Roosevelt
   1. Proposed putting one million men to work conserving wood, water, and soil
   2. Conservation became an integral part of war against depression
   3. Phrases ofted used by F. D. R.
      "Look to the land" and "The east has a stake in the west and the west has a stake in the east and the nation must be considered as a whole."
   4. Tennessee Valley Authority
      a. Redevelopment of a region that included parts of seven states
      b. A semi-independent regional authority created
      c. Given wide powers to promote "the economic and social well-being of the people" of the entire valley
   5. Civilian Conservation Corps
      a. Rehabilitation of land and men
      b. Men planted over 2,000,000,000 trees, aided wildlife restoration, and built needed facilities in National Parks
      c. Many small dams built to prevent large areas from becoming eroded

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BACKGROUND INFORMATION: PART IV - CAREERS

Naturalist	One devoted to the study of natural history; i.e. zoologist, botanist
Biologist	One who studies plant and animal life
Logger	One who fells trees and cuts them into suitable lengths
Ecologist	One who studies the branch of biology that deals with the relations between plants and animals and their environment
Watershed Manager	One who controls the flow of water from the shed into reservoirs
Forest Ranger	A person who protects and preserves our forests
Paper Resource Specialist	A specialist in the production of paper
Wildlife and Fish Manager	One who works to preserve and protect animal and fish life in National and State parks and forests
Game Warden	One who registers the number of game killed and enforces the hunting regulations
Legislator	One who writes laws, studies the need for laws, and keeps in touch with his constituents in order to be aware of their needs and problems
Conservationist	One who advocates or promotes conservation, especially of natural resources. Includes several professional careers, such as: soil scientist, conservation engineer, agronomist, range conservationist
Para Professional Worker	A person who assists professional people in their jobs in a variety of ways. Included are: secretary, social worker (e.g. combatting drug addiction, or alcoholism), playground director, etc.

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Psychologist	A person who studies human behavior. May teach or counsel others in his field or specialty
Sociologist	One who studies the origin, development, organization, and functioning of human society
Teacher	One who instructs
Minister	One who is authorized to conduct worship
Teacher Aide	One who assists a teacher
Recreation Director	One who directs any type or organized recreation
Counselor	One who counsels and advises people
Police Officer	One who enforces laws, maintains order, and prevents and detects crime.
Government Worker	On-the-job training is a way of life ingovernment. An employee begins as an apprentice, helper or assistant and learns the skills by doing them and by working with experienced workers. This occurs in nearly all the blue-collar trades and crafts. Government hospitals are not essentially different from other public or nonprofit institutions, so the same opportunities for training in the nursing and health technology apply. The Federal Service includes many categories of aides. Indeed, nearly every scientific and technical specialty has an aide associated with it. There are engineering aides, biological aides, laboratory, cartographic, electronic aides and many more. These are positions for which the inexperienced high school graduate can qualify. They offer opportunity to work in the scientific and technical fields and develop the skills which enable a person to become a technician.

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In addition to on-the-job training there are voluntary education programs. Government agencies regularly hold classes for their employees, teaching a wide range of subjects, liberal arts to specific skills. An unskilled clerical worker can enroll in typing or shorthand classes. A clerk can take accounting principles. An aide can enroll in courses in basic electronics. At the same time, workers are encouraged to enroll in night courses in colleges and technical schools.

Then, as we have seen, employees with potential and promise are enrolled in formal training programs to develop their skills and extend their knowledge. They are sent to universities, seminars and workshops of great variety.[1]

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[1]Liston, Robert A., On the Job Training and Where to Get It. New York: Julian Messner, 1970.

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INSTRUCTIONAL SEQUENCE

The authors of this unit have made no attempt to put a time limit on or otherwise structure the number of days or weeks to spend on each lesson. It is hoped that the teacher will incorporate this unit into his year's curriculum, as the concepts and objectives underlie all aspects of the educational program.

The teacher should always keep in mind that her own classroom is a miniature society. By first limiting this unit to the familiar or immediate environment and then projecting to society in general, the individual student will be better able to relate to the lessons as he is the affected and the effector.

Concepts IX and X concerning careers should be reflected in each concept's activities.

Concept I.

There is a set of eight values by which an individual evaluates himself and others. It includes respect, power, wealth, enlightenment, skill, well-being, justice, and affection.

Behavioral Objective 1.

After completing the section on values, each child will identify in writing the eight human values.

Introduce this section of the unit by giving the pre-post test.

Then discuss the eight human values with the children. Point out how important values are to all of us and then take every opportunity that arises to point out the effects of deprivation of these values. Emphasize, without criticizing or lecturing, that in order for an individual to be accorded these values he must be willing to share them with others.

Introduce and present <u>The Human Value Series</u>. Either read the stories to the class and discuss the values as presented in the Teacher's Edition, or have each child read the stories independently if enough books are available for the class, and follow by group discussion. (See background information for a list of grade levels for use of the books. See data sheet #2 and 4).

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All group discussions should be held in as informal a setting as possible. Go outside whenever the weather permits. The activities listed below are equally adaptable to the outdoors.

These activities will aid in teaching and evaluating the eight human values. They are by no means conclusive ways in which a teacher may judge self-awareness of the student. The activities will give the teacher some general guidelines for testing his effectiveness in teaching this section. It is suggested that the teacher use at least three activities and then choose others to fit the needs and interests of his particular classroom.

Activities and Evaluation Techniques

A. Sociogram (See Background Information, Part I - A, and Data Sheet #6)

B. Role playing to get at the feelings, abilities, values, and motivations of the individuals in the group (See Background Information, Part I - B, and Part II - D)

C. Group discussions on feelings and values (See Background Information, Part I - C, and Data Sheet #3)

D. Sentence completion (See Background Information, Part I - D, and Data Sheet #11)

E. Diary (See Background Information, Part I - E)

F. Autobiography (See Background Information, Part I - F)

G. Puppet activities (See Background Information, Part I - G)

H. "How Do You Feel?" Game (See Background Information, Part I - H)

I. Anecdotal Records (See Background Information Part I - I)

J. Personal data blank for each child. A folder may be kpet for each student. (See Background Information, Part I - J)

K. Questionnaire, checklist, and rating scale (See Background Information, Part I - K)

L. Compositions. Suggested titles: "How I Feel", "What Makes Me Angry", "Three Wishes", "My Best Friend", "My Favorite Teacher", "If I Had a Million Dollars".

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M. Book about me. Have each child make a "Book About Me" by drawing pictures and writing stories about his best friends, home, favorite foods, favorite stories, favorite pastimes, self-portrait, etc. (See Data Sheet #12)

N. Finger painting, drawing, and other art acitivites that allow the child to express himself freely.

O. A picture book or bulletin board. Let each child have a turn to make a bulletin board or a picture book about himself. Ask him to bring pictures from home to show his interests, likes, family information, or any other material that will help his classmates be more aware of him as an unique individual.

P. List. Make a list with the group of all things that are unique to individuals within the group, stressing only positive attributes and then discussing each others' uniqueness.

Q. "Who Is It?" Game. Describe one of the children in the class, emphasizing only positive qualities. Let the children guess the child's identity. Begin with physical traits and continue with other characteristics. This can be done by the teacher or by members of the group. Example: I'm thinking of somebody who has on a green shirt." "A person here is a great baseball player," etc.

R. "I'm Glad I'm Me" Game. Ask each child to volunteer something good about himself. If no response is forthcoming ask members of the class to help and/or contribute something.

S. Likes and dislikes. Have children list what they like and dislike doing and then rank activities in order from the most like to the least liked. Have them also write some things that they would like to do.

T. "What's in the Bag?" The purpose of this activity is to help the child use his senses.

U. "Awareness of Others" Game. A child covers his eyes while someone puts an article or piece of property behind him. The child tries to discover who it belongs to and takes it back to the owner.

V. "Everyone is Necessary." Discuss with the group that everyone in the room is an integral part of it. Have volunteers cite ways in which they can help to make the room a more enjoyable place.

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W. Feeling word dictionary. Have each child make a dictionary in which all new "feeling words" are defined and cut out pictures to illustrate each work in the dictionary.

X. Compositions or pictures. Have students write about and illustrate the eight values. The compositions and/or pictures may be explained and shown before the class. This is an example of a story that could be made up on wealth:

A TRIP TO THE CANDY STORE

One warm day in August, John and his sister, Mary, decided that they would go for a walk downtown. As they were walking down the street, Mary's eyes opened wide when she saw the candy store. She said, "John, let's go to the candy store." John agreed and they both rushed through the door. They scurried to each case, becoming more and more excited as they saw all of the candy. Finally Mary fixed her eyes on some peppermint sticks and said to John, "Please, John, let's get some peppermint sticks." John looked down at his sister and said, "I wish that I could get you some candy but we don't have any money." Both children left the store very disappointed.

The class may try to figure out which main value or values the story is about.

Y. Puppets. Use puppets and role-playing to dramatize the values. (See Background Information, Part I - G)

Z. The children can analyze the values in their reading books, other texts, films, television shows, etc. They may then write reports which emphasize values that are presented in all of the above media.

Concept II.

Cooperation between society and the total (natural and man-made) environment is necessary for the survival of both.

Behavioral Objective 2.

After completing the section on the cooperation between society and the total environment, each student will be able to identify in writing one environmental practice that is necessary for the survival of man.

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Introduce by discussion the concept of cooperation. Why is it needed in a group and what happens when there is a lack of cooperation. Then visit a nearby area to show the need for cooperation between society and the total environment. Emphasize how industries, highways, shopping centers, housing developments, modern transportation, new agricultural practices, etc. have improved our lives and have given us unrealized luxuries. Then emphasize the price the environment has paid for these luxuries. Finally discuss with the class the reasons and necessity for cooperation and planning between industries, construction firms, etc. Stress the importance of such collaboration for the survival of both society and the environment. (See Data Sheets #1 and #7).

Trips to the Old Court House and The Saint Louis Riverfront or to a Saint Louis area sewage system to demonstrate the need for cooperation between society and the environment.

A. Field trips to local industries, shopping centers, etc. to show how cooperation and planning helps the community.* (See Data Sheet I.)

Activities

A. List on the board as a class activity ways that cooperation helps the group and ways that lack of cooperation harms the group. Transfer both lists to a chart.

B. Divide the class in small groups of four or five children using the sociogram data. These small groups will make murals for social studies or health or write reports on different ecological topics, etc.

C. Experiencing group work. Give the students an opportunity to experience group work by dividing into groups for free activity time. Let each group decide what it will work on, whether it be painting, clay modeling, etc. Whatever they choose must be done as a group project. Provide help when necessary by suggesting things they might do together. At the end of the period observe the accomplishments of each group and emphasize that the achievements were the result of working together.

D. Produce a television program or movie of a favorite story. Have the students work in groups. Each group can plan the pictures they will need, arrange them in sequence, and paste them together in a long strip. The strip can then be shown in a box and turned by dowels to show a movie of the story, or it can be shown in the same kind of box with the front designed like a television set. The story may be narrated by the students, or captions may be printed at the bottoms of the pictures.

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E. Room cleaning activities. Decide with the class what jobs need to be done in the room and why, and who will do each job and when.

F. The students will role play or use their puppets to show ways in which cooperation can be used in human relations.

Examples:
1. Playing a game
2. Noise in the school building
3. Showing patience when a person wants something he can't immediately have (i.e. cafeteria)
4. The best way to make new friends
5. Having a party
6. Fire drills
7. Bus loading
8. Assemblies

G. Field trips to local industries, shopping centers, etc. to show how cooperation and planning helps the community.* (See Data Sheet I)

H. Films that deal with environmental problems showing areas where cooperation is necessary for improving the environment.

Examples:
1. All the Difference - Write to Conservation Committee
Film Loan Service
P.O. Box 180
Jefferson City, MO 65101
2. The Gift - Write or call Jack Woodhead at
Conservation Department
326 Cerny
Eureka, MO 63025
3. Cry of the Marsh - Available through County A.V.

I. Debates and counter-attitudinal role playing (See Background Information, Part I - B, and Part II - D, 3.

J. Group projects such as paper drives, glass and bottle drives, cleaning up the school yard, etc.

Concept III.

One person, the individual, has a positive and/or negative effect on his environment.

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Behavioral Objective 4.

After completion of the section on rules in the classroom, each student will explain the importance of one rule in the classroom and will be able to explain why it benefits others as well as himself.

Introduce by discussion the purpose of one rule and all related aspects of that rule, i.e. using the pencil sharpener at designated times.

Activities

A. Lead the class as a whole in making up rules for their classroom. Evaluate each rule in reference to fairness to the group and the individuals, the purpose of each rule, and how it affects the environment of the classroom.

B. Set up legislative, judicial, and executive branches in the classroom.

C. Selected reports may be written and presented to the class.

Concept IV.

Freedoms should be limited when they infringe upon the environment and the rights of others.

Behavioral Objective 4.

After the activities on limitation on freedom have been completed each student will identify in writing one limitation of freedom that is necessary to insure the rights of others and the environment.

Introduce this section by having a role playing activity. For example, have students talk without raising their hands, interrupt people, give reports while several classmates have private discussions, etc.

Activities

A. Take one freedom we all enjoy, such as going to a state park, using water freely, or using an unlimited supply of electricity. Then have the class discuss what each person's responsibility is to the part, other individuals using it,

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and the future of the park. Have students draw a picture illustrating what they would do to leave the park in good condition after they had enjoyed its use.

B. Find examples of human freedoms outside one's own classroom. For example, visit a physical education class. Have the children look for justice in that class. Are there limitations on freedom? Why?

C. Find examples of cooperation and limitations of freedom in nature. Try to find an earthworm in the soil and watch the aeration of the soil which the earthworm performs. An ant colony is an excellent examples of cooperation in nature.

Concept VI.

Rules in the classroom parallel rules in the society.

Behavioral Objective 6.

After the section on rules in a classroom and laws in a society has been taught, each student will be able to compare one classroom rule to one law that protects our society.

Introduce by discussing one classroom rule and comparing it to one rule in society, i.e. no littering in the classroom, each student takes care of his immediate surroundings (desk area), can be compared to the no littering laws in society. (See Data Sheet # 8 and #9)

Activities

A. Have students, working in groups of five, make bulletin boards illustrating one rule of the classroom or school as compared with one law in society.

B. Have students compare in writing three fules of the classroom with three laws of society.

Concept VII.

Man's past shows the need for preservation of the enviornment.

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Behavioral Objective 7.

At the end of the unit each child will be able to give one example of man's past misuse of the environment.

*Introduce by discussing the historical aspects of man's misuse by visiting examples of same.

Talk about:

1. Differences in theory between the Indian and white man

2. Exploration of the West. (Daniel Boone, Jedadiah Smith)

3. Conflicts with the Indians and destruction of the buffalo by white settlers; scorched earth policy

4. Get rich policy
   a. logging
   b. mining
   c. fur industry, trapping
   d. oil and gases

5. Acts
   a. Homestead Acts
   b. Forest Reservation Act of 1891
   c. Louisiana Purchase
   d. Northwest Ordinance and Land Ordinance of 1785

6. Presidents' and Conservationists' Effects
   a. J. Q. Adams
   b. Jefferson
   c. Jackson; Calhoun
   d. Grant
   e. T. Roosevelt
   f. Schurz, Pinchot, Muir, Powell
   g. F. D. Roosevelt

*When teaching this lesson, the teacher must stress the importance of conserving our natural resources. This point can be developed by using Stewart Udall's book, The Quiet Crisis, as a guide. An attempt has been made in the background-information to outline the book, bringing out the most important aspects. However, this outline has but a limited value, and the teacher should read the book in order to effectively teach this lesson. In the opinion of the authors of this unit Udall's book is one of the most interesting and concise conservation history books ever written. It is hoped that through the study of American History the teacher can lead her students to an insight into previous mistakes and poor philosophy, and an appreciation of the important roles individuals played in preserving or destroying our natural resources.

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Concept VIII.

There is a need for conservation laws or practices to preserve our environment.

Behavioral Objective 8.

At the end of the unit, each child will be able to give one reason why we need conservation laws to preserve our present and future enviornment.

Introduce by discussing the present status of our environment.

Activities

A. Have the children collect pictures and make posters or notebooks depicting environmental problems of today, i.e. air pollution, water pollution, land erosion, waste, contour farming, over-population. (See Data Sheet #10)

B. Find pictures of extinct or nearly extinct animals, e.g. passenger pigeon, whooping crane, alligator, prairie chicken, bald eagle.

C. Have each student choose one environmental problem and hypothesize what effect that problem will have in the future.

D. Have children observe the school neighborhood and evaluate the need for conservation efforts still to be made.

Concept X

There are many people who help other people understand themselves and others. Examples are, psychologists, counselors, and social workers, both professional and para-professional.

Behavioral Objective 10.

After studying the section on careers, each student will be able to choose one career involved with understanding the self and others and to describe three activities in which a person involved in this job would be likely to participate.

Introduce careers applicable to the activities below whenever practical in the teaching-learning situation.

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Activities

A. The children can write or tape record individually or in groups, reports about one of the careers related to the environment.

B. Invite representatives from as many areas as possible to discuss their jobs with the class. Many of these people not only work in our school district, but are parents and community leaders.

C. On one of the trips through the forest, the proper management of the forest and those responsible for that job should be discussed.

D. On each trip or walk, those people concerned with the maintainence of the place visited and observed should be noted and discussed.

Teacher should give the Pre-Post Test again now that the activities are complete and fill out the student evaluation sheet on the following page (to be returned by interschool mail to EEE Staff, Central Office).

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DATA SHEET I

FIELD TRIP TO AN INDUSTRY

NAME _____ DATE _____

NAME AND LOCATION OF THE INDUSTRY: _____

_____

_____

DESCRIPTION OF THE INDUSTRY: _____

_____

_____

_____

LIST WAYS THIS INDUSTRY CAUSES POLLUTION: _____

_____

_____

_____

_____

_____

LIST WAYS THIS INDUSTRY IS TRYING TO REDUCE POLLUTION: _____

_____

_____

_____

_____

LIST REASONS WHY THIS INDUSTRY IS IMPORTANT TO US TODAY: _____

_____

_____

_____

DATA SHEET 2

Name _____

Date _____

HUMAN VALUES

1.	Respect	5.	Skill
2.	Power	6.	Well-being
3.	Wealth	7.	Justice
4.	Enlightenment	8.	Affection

Directions: Write down the value you think is most important in each section of the story.

NAME OF STORY:

_____

VALUES:

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

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Name _____

Date _____

HUMAN VALUES

1.	Respect	5.	Skill
2.	Power	6.	Well-being
3.	Wealth	7.	Justice
4.	Enlightenment	8.	Affection

Directions: Write down the value you think is most important in each section of the story.

NAME OF STORY:

_____

VALUES:

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

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DATA SHEET 3

Name _____ Date _____

1. List the five things you consider most important and like about people.

   1. _____

   2. _____

   3. _____

   4. _____

   5. _____

2. List five things that you dislike about people.

   1. _____

   2. _____

   3. _____

   4. _____

   5. _____

3. List those things you like best and dislike most about yourself.

_____

_____

_____

_____

4. List as many environmental problems as you can.

_____

_____

_____

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5. Make up three rules you would like to have in your classroom and why you think they are necessary.

6. Explain in a short paragraph whether or not we have a never-ending supply of our natural resources, i.e.; trees, water, animals, minerals, etc.

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DATA SHEET 4

Name _____ Date _____ Score _____

Match the Following:

___ Respect	(a) Fair play
___ Power	(b) Decision-making
___ Wealth	(c) Capability
___ Enlightenment	(d) Knowledge
___ Skill	(e) Friendship
___ Well-being	(f) Property
___ Justice	(g) Admiration
___ Affection	(h) Happiness

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DATA SHEET 5

Name _____ Date _____

POSITIVE AND NEGATIVE RESULTS

Directions: List one positive and one negative result which each activity below will have on the environment.

1. Throwing away cans

   Positive _____

   Negative _____

2. Driving a car

   Positive _____

   Negative _____

3. Spraying the garden with a pesticide

   Positive _____

   Negative _____

4. Burning trash

   Positive _____

   Negative _____

5. Packaging

   Positive _____

   Negative _____

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DATA SHEET 6

Name _____ Date _____

1. Describe in a short paragraph your role in this classroom.

2. List the eight human values and define each.

a. _____

_____

b. _____

_____

c. _____

_____

d. _____

_____

e. _____

_____

f. _____

_____

g. _____

_____

h. _____

_____

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DATA SHEET 7

Name _____ Date _____

1. List three ways in which you, as an individual, cooperate within our group.

   a. _____

   _____

   b. _____

   _____

   c. _____

   _____

2. List three environmental practices that local, state, or national governments are doing to help preserve the environment.

   a. _____

   _____

   b. _____

   _____

   c. _____

   _____

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DATA SHEET 8

Name _____ Date _____

Take two present classroom rules and explain in two short paragraphs how they benefit or hinder you and your classmates.

1.

2.

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DATA SHEET 9

Name _____ Date _____

1. Explain how you have a responsibility to protect one aspect of the environment.

2. Choose two classroom rules and parallel them with two rules pertaining to the environment outside of the classroom.

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DATA SHEET 10

Name _____ Date _____

Cut out a picture depicting an environmental problem. Paste it on this sheet and then write a caption for it.

DATA SHEET 11

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SENTENCE COMPLETION

NAME_____ DATE_____

1. My mother_____
2. My father_____
3. School_____
4. Friends_____
5. The future_____
6. Girls_____
7. Boys_____
8. I can_____
9. I cannot_____
10. I like_____
11. I dislike_____
12. My best work in school_____
13. I wish my classmates would_____
14. I'm proud of myself because_____
15. Often I think_____
16. I wish_____
17. There are times_____
18. Many of my dreams are_____
19. Secretly_____
20. When_____

DATA SHEET 12

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SELF PORTRAIT

Name _____ Date _____

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DATA SHEET 13

Name _____ Date _____

ENVIRONMENTAL INVENTORY

LIST WAYS IN WHICH YOU POLLUTE THE ENVIRONMENT:

LIST WAYS IN WHICH YOU CONSERVE THE ENVIRONMENT:

Return to: Verlin M. Abbott
455 N. Woods Mill
Administration Bldg.
Chesterfield, MO

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School_____

Teacher_____

Unit_____

Student post-test results will be grouped in the following manner:

Example:

Number of post-test questions given 10.

Number of students	Number of questions answered correctly.
6	12
5	10
8	9

Number of post-test questions given._____

Number of Students	Number of Questions Answered Correctly

Number of post-test questions given._____

Number of Students	Number of Questions Answered Correctly

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Bonney, Merl E. and Hampleman, Richard S., Personal-Social Evaluation Techniques. Washington: The Center for Applied Research in Education, Inc., 1962.

Dinkmeyer, Don C., Developing Understanding of Self and Others D-1 Manual. Circle Pines: American Guidance Service, Inc.

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Terry, Mark, Teaching for Survival. New York: Ballantine Books, Inc., 1971.

Udall, Stewart L., The Quiet Crisis. New York: Avon Books, 1963.

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Periodicals:

Bensley, Marvin L, "Value Education." Coronado, California Unified School District Title III Program, January, 1971.

In order to receive additional career opportunities information, write to:

United States Forest Service
Soil Conservation Service
Bureau of Land Management
Fish and Wildlife Service
Missouri Conservation Service

Learning Kit:

Eco Kit: "No Time for Waste", available in individual school libraries or resource centers.

Additional Sources of Information on Environmental Problems:

AIR:

St. Louis County Health Department
Air Pollution Control Division
801 S. Brentwood Blvd.
Clayton, MO 63105

WATER:

Water Pollution Board
General Grant Shopping Center
8460 Watson
St. Louis, MO

SOLID WASTE:

East West Gateway Coordinating Committee
720 Olive St. Suite 2110
St. Louis, MO 63101

GENERAL:

Environmental Task Force
7900 Forsythe
Clayton, MO 63105

GENERAL continued:

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Environmental Committee
City of Manchester
P.O. Box 672
Manchester, MO 63011

Recycling Center
Target Store Parking Lot
Holloway and Manchester Roads
Manchester, MO 63011